WHAT IS CLAIMED IS:

1. A throttle control device comprising:

a throttle body defining an intake passage;

a throttle valve rotatably arranged in the intake passage;

a motor for rotating the throttle valve, the motor having a motor casing, with one axial end portion and an other axial end portion;

a first support device supporting the one axial end portion of the motor casing fixedly on the throttle body; and

a second support the other axial end portion of the motor casing on the throttle body resiliently with respect to a radial direction of the motor, the second support device having a substantially ring-like resilient support member.

2. A throttle control device according to Claim 1, wherein the support member comprises an O-ring.

3. A throttle control device according to Claim 1, wherein the second support device supports the other axial end portion of the motor casing on the throttle body resiliently also with respect to an axial direction of the motor casing.

4. A throttle control device according to Claim 2, wherein the second support device supports the other axial end portion of the motor casing on the throttle body resiliently also with respect to an axial direction of the motor casing.

5. A throttle control device according to Claim 1, wherein the throttle body has a

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motor housing accommodating the motor, the motor housing having a stepped circular depression formed therein for receiving with clearance a shaft portion provided on the other axial end portion of the motor casing, and wherein the support member is disposed between the shaft portion and an inner peripheral surface of the stepped circular depression.

6. A throttle control device according to Claim 2, wherein the throttle body has a motor housing accommodating the motor, the motor housing having a stepped circular depression formed therein for receiving with clearance a shaft portion provided on the other axial end portion of the motor casing, and wherein the support member is disposed between the shaft portion and an inner peripheral surface of the stepped circular depression.

7. A throttle control device according to Claim 5, wherein the shaft portion protrudes from the other axial end surface of the motor casing, and wherein an outer diameter of the shaft portion is smaller than an outer diameter of the motor casing.

8. A throttle control device according to Claim 6, wherein the shaft portion protrudes from the other axial end surface of the motor casing, and wherein an outer diameter of the shaft portion is smaller than an outer diameter of the motor casing.

9. A throttle control device according to Claim 7, wherein the support member also is positioned between the other axial end surface of the motor casing and a support surface, and the support surface being defined within the stepped circular depression so as to be axially opposed to the end surface, so that the support member supports the other axial end portion of the motor casing on the motor housing resiliently also with respect to an axial direction of the

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motor.

10. A throttle control device according to Claim 8, wherein the support member also is positioned between the other axial end surface of the motor casing and a support surface, and the support surface being defined within the stepped circular depression so as to be axially opposed to the end surface, so that the support member supports the other axial end portion of the motor casing on the motor housing resiliently also with respect to an axial direction of the motor.

11. A method of mounting a motor to a throttle body in the throttle control device as in Claim 1, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

12. A method of mounting a motor to a throttle body in the throttle control device as in Claim 2, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

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b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

13. A method of mounting a motor to a throttle body in the throttle control device as in Claim 3, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

14. A method of mounting a motor to a throttle body in the throttle control device as in Claim 4, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor

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casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

15. A method of mounting a motor to a throttle body in the throttle control device as in Claim 5, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

16. A method of mounting a motor to a throttle body in the throttle control device as in Claim 6, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

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c) fixing the other end portion of the motor casing to the throttle body via the first support device.

17. A method of mounting a motor to a throttle body in the throttle control device as in Claim 7, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

18. A method of mounting a motor to a throttle body in the throttle control device as in Claim 8, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

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19. A method of mounting a motor to a throttle body in the throttle control device as in Claim 9, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

20. A method of mounting a motor to a throttle body in the throttle control device as in Claim 10, the method comprising the steps of:

a) attaching the support member to the other end portion of the motor casing of the motor;

b) inserting the motor into the throttle body, starting with the other end portion with the support member attached thereto, to support the other axial end portion of the motor casing on the throttle body via the second support device resiliently with respect to a radial direction of the motor; and

c) fixing the other end portion of the motor casing to the throttle body via the first support device.

21. A method according to Claim 11, wherein the step b) includes supporting the

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other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

22. A method according to Claim 12, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

23. A method according to Claim 13, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

24. A method according to Claim 14, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

25. A method according to Claim 15, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

26. A method according to Claim 16, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

27. A method according to Claim 17, wherein the step b) includes supporting the

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other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

28. A method according to Claim 18, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

29. A method according to Claim 19, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

30. A method according to Claim 20, wherein the step b) includes supporting the other axial end portion of the motor casing on the throttle body by means of the second support device resiliently also with respect to an axial direction of the motor casing.

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